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Environment / Health / Safety
DIVISION
Environmental Services

Via email and certified mail
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July 3, 2014

Mr. Jacinto Soto
Project Manager, Brownfields and Environmental Restoration Program
Department of Toxic Substances Control
700 Heinz Ave., Suite 200
Berkeley, CA 94710-2737

Subject: Summary Report for Newly Identified Polychlorinated Biphenyl Release at Lawrence Berkeley National Laboratory's Building 16 Area

Dear Mr. Soto,

As required by the Hazardous Waste Facility Permit Number 03-BRK-11 issued to Lawrence Berkeley National Laboratory (LBNL) by the California Environmental Protection Agency Department of Toxic Substances Control (DTSC), this report provides a summary of the findings regarding a historical polychlorinated biphenyl (PCB) release found in the Building 16 area and reported to you on June 18, 2014. Specifically, this letter addresses paragraph B.1 of the Permit, which requires the following:

> "In the event the Permittee identifies an immediate threat to human health and/or the environment, discovers new releases of hazardous waste and/or hazardous constituents, or discovers new Solid Waste Management Units (SWMUs) not previously identified. The Permittee shall notify DTSC orally within 24 hours of discovery and notify DTSC in writing within 10 days of such discovery summarizing the findings including the immediacy and magnitude of the potential threat to human health and/or the environment."

BACKGROUND

LBNL is in the process of preparing a section of the site called "Old Town" for redevelopment. The Old Town area is part of LBNL's central developed area and encompasses approximately 15 acres. Several Old Town buildings were among the first to be constructed at LBNL and date back to the 1940s.

The Old Town Demolition Project ("the Project") has been established to demolish these older buildings and foundation slabs, including associated subsurface piping and incidental soil. The first phase of the Project includes demolishing three buildings and their foundations (Buildings 5 and 16/16A) and removing the concrete foundation slabs of four buildings that were previously demolished (Buildings 40, 41, 52, and 52A). The locations of the buildings and foundations currently planned for demolition are included on Figure 1. Demolition of additional Old Town buildings may be conducted under future Project phases.

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Environmental sampling is included within the Project's scope as part of a due diligence process and to identify and address potential cost and schedule impacts. Accordingly, soil samples are being collected beneath, and adjacent to, the Old Town buildings and building slabs planned for demolition. The results of these sampling activities will be reported to DTSC.

HISTORICAL RESULTS

PCBs were detected in samples collected in the Old Town area, including exposed soil areas west of Building 16, west of Building 52, and between Buildings 52 and 52A during LBNL's RCRA Facility Investigation (RFI). The source and date of the historical PCB releases was not determined, as operations in these areas began in the 1940s and 1950s.

Of the approximately 100 samples collected for PCB analysis in these areas, only two contained PCBs at a concentration above 1 milligram/kilogram (mg/kg) – the Toxic Substances Control Act (TSCA) self-implementing cleanup level for soil in high occupancy areas. The concentrations that exceeded the TSCA level were west of Building 16 (2.5 mg/kg) and west of Building 52 (1.3 mg/kg). Based on an assessment of the potential risks to workers associated with this contamination, these levels were determined to be insignificant and no cleanup was required.

RECENT FINDINGS

In May and June 2014, LBNL collected shallow soil samples beneath and adjacent to Building 16. The samples were analyzed for PCBs using EPA Method 8082 with soxhlet extraction by Curtis and Tompkins Inc. in Berkeley, CA. Sampling locations, depths, and detected PCB concentrations are shown on Figure 2. Three samples contained PCBs at concentrations greater than 1 mg/kg, including two samples in exposed soil areas west of Building 16 (1.3 mg/kg and 4.2 mg/kg) and one soil sample underneath the southwestern end of Building 16 (4.4 mg/kg).

POTENTIAL THREAT TO HUMAN HEALTH AND/OR THE ENVIRONMENT

Currently there is no significant risk to human health or the environment associated with the PCB-contaminated soil in the areas described above. The human health exposure pathways that drive risk are dermal contact with, and ingestion of, PCB-contaminated soil. To mitigate the potential risk, the area has been posted with warning signs requiring Hazardous Waste Operation (HAZWOPER) training for any worker handling soil in the posted area. In addition, LBNL requires a penetration permit for all soil disturbances that will control access to the soil in this area.

Potential exposure of wildlife to soil and groundwater contamination within the developed area was determined not to be a completed exposure pathway in LBNL's 2002 Ecological Risk Assessment because suitable habitat for wildlife is restricted to the natural areas around LBNL's perimeter, and is not present in the central developed area, including the Old Town area.

PLANNED ACTIVITIES

Additional samples will be collected to determine the extent of soil contamination exceeding the 1 mg/kg level. The results of this sampling will be reported to DTSC.

Please contact David Baskin (dabaskin@lbl.gov) at 510-486-5684 or me (ropauer@lbl.gov) at 510-486-7614 if you have any questions.

Sincerely,

Ron Pauer

Ron Pauer
Environmental Manager

cc via email:

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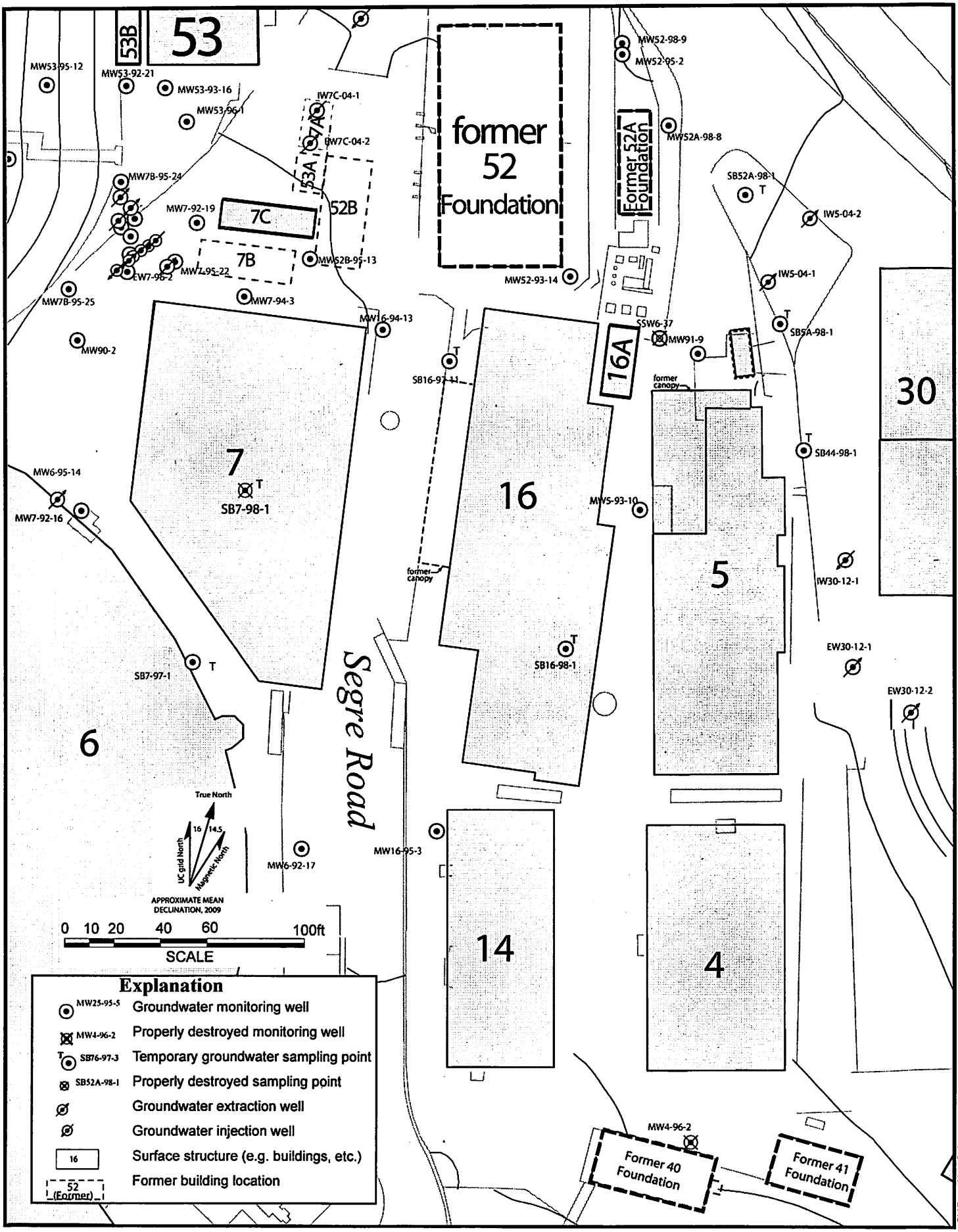

Figure 1. Lawrence Berkeley National Laboratory Old Town Area.

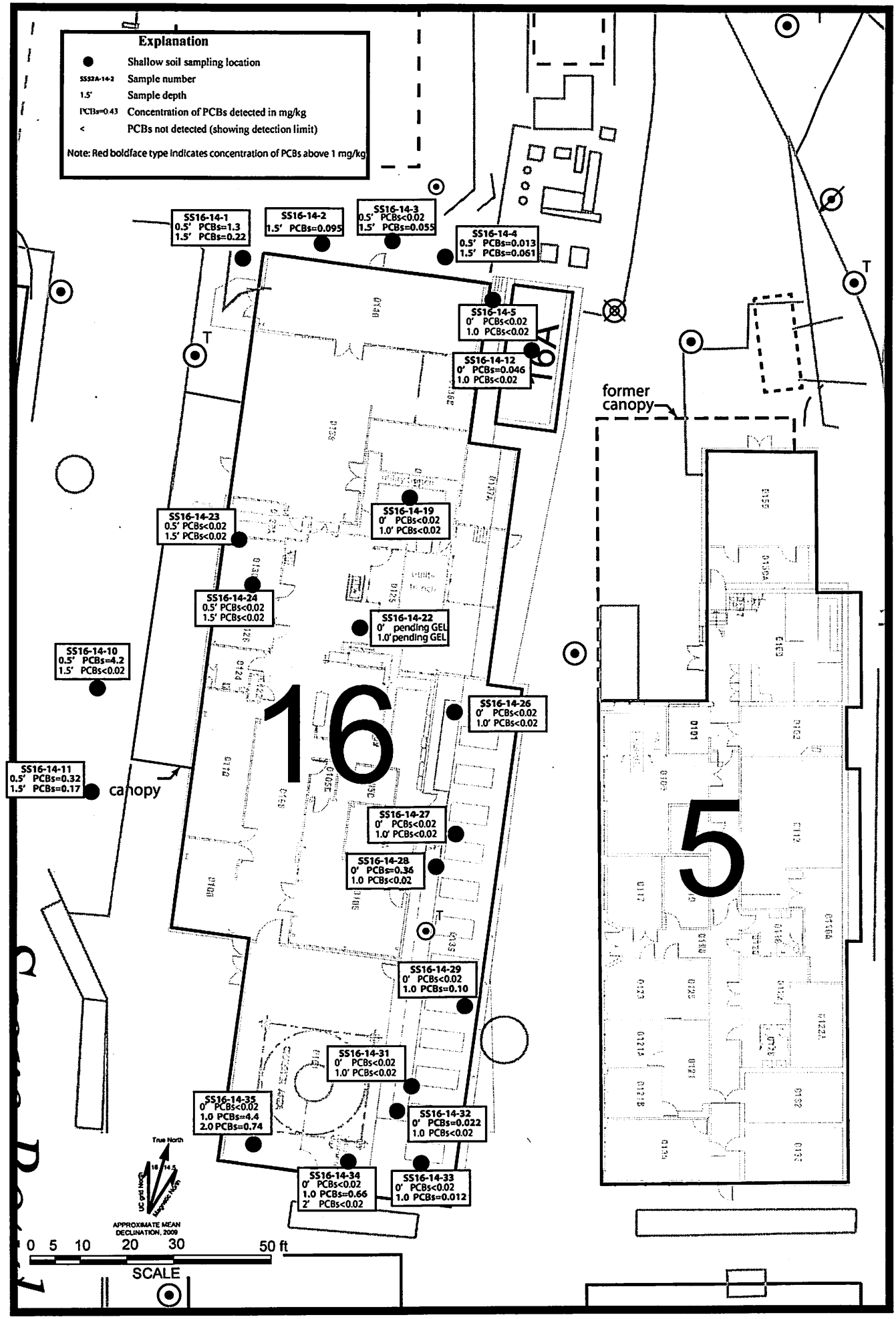

Figure 2. Soil Sampling Locations Building 16 Area Showing PCB Concentrations Detected.